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EXAMINER

TANG, KUO LIANG J

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/940,189	Applicant(s) VAZQUEZ ET AL.	
	Examiner Kuo-Liang J Tang	Art Unit 2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/19/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 8/19/2004.

Claims 1-35 are pending and have been examined.

The priority date for this application is 6/29/2001.

Response to Arguments

2. Applicant's arguments, see remarks pages 2-6, filed 8/19/2004, with respect to the rejection(s) of claim(s) 1-35 under 35 U.S.C. §103(a) by Meyer and Marrion have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Meyer and Favreau.

Claims 1-13, 15-16, 18--24 and 26-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer US Patent No. 5,940,296.

Claims 14, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable Meyer in view of Favreau et al., US Patent No. 6,531,707.

Furthermore, Claims (1, 19, 20), (21), (25), (27) and (35) remain provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims (1, 3, 8), (16), (20), (21) and (28) of co-pending Application No. 10/100,559 respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following observation.

Instant Application Claims	'559 Claim
<p data-bbox="295 1218 738 1379">1. A method for specifying a computer-implemented process, the method comprising:</p> <p data-bbox="295 1705 738 1770">displaying a graphical user interface comprising a plurality of possible steps that</p>	<p data-bbox="760 1218 1203 1306">1. A method for specifying a machine vision process, the method comprising:</p> <p data-bbox="760 1417 1203 1455">displaying an image on a display;</p> <p data-bbox="760 1564 1203 1675">displaying a graphical user interface on the display, wherein the graphical user interface comprises a plurality of possible</p> <p data-bbox="760 1705 1203 1770">image processing steps;</p>

<p>are useable in specifying at least a portion of a process;</p> <p>receiving user input selecting a plurality of steps specifying a first portion of the process;</p> <p>creating a process specification in response to the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process;</p> <p>creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process;</p> <p>wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process;</p> <p>wherein the process specification and the block diagram collectively specify the</p>	<p>receiving user input selecting a plurality of image processing steps to be applied to the image;</p> <p>creating a process specification in response to the user input, wherein the process specification comprises the plurality of image processing steps, wherein the process specification specifies a first portion of the machine vision process; and</p> <p>creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the machine vision process;</p> <p>wherein the process specification and the block diagram collectively specify the</p>
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<p>computer-implemented process.</p> <p>19. The method of claim 1, wherein the process is a machine vision process executable to visually inspect a device; wherein the block diagram is executable to determine an inspection classification for the device, depending on execution results of the process specification.</p> <p>20. The method of claim 1, wherein the process is executable to perform one or more of the following types of applications: a machine vision application; an image processing application; an image analysis application; a motion control application; an industrial automation application; a process control application; a test and measurement application; a simulation application.</p>	<p>machine vision process.</p> <p>3. The method of claim 1, wherein the plurality of image processing steps of the process specification are operable to analyze an image of a device under inspection; wherein the block diagram is operable to determine an inspection result for the device, based on values determined by the image processing steps.</p> <p>8. The method of claim 1, further comprising: executing the machine vision process, wherein the machine vision process visually inspects a device and generates a result.</p>
<p>21. A method for specifying a computer-implemented process, the method</p>	<p>16. A method for specifying a machine vision process, the method comprising:</p>

<p>comprising:</p> <p>displaying a graphical user interface (GUI), wherein the GUI includes operations that are selectable to be included in a process specification;</p> <p>receiving user input to the GUI, wherein the user input selects operations for inclusion in the process specification;</p> <p>creating the process specification in response to the user input, wherein the process specification specifies a first portion of the process;</p> <p>creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process;</p>	<p>displaying a graphical user interface (GUI), wherein the GUI includes machine vision operations that are selectable to be included in a process specification;</p> <p>receiving user input to the GUI, wherein the user input selects machine vision operations for inclusion in the process specification;</p> <p>creating the process specification in response to the user input, wherein the process specification specifies a first portion of the machine vision process;</p> <p>creating a block diagram in response to</p>
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<p>wherein the process specification and the block diagram collectively specify the computer-implemented process.</p>	<p>user input, wherein the block diagram specifies a second portion of the machine vision process;</p> <p>wherein the process specification and the block diagram collectively specify the machine vision process</p>
<p>25. A method for specifying a computer-implemented process, the method comprising:</p> <p>creating a process specification in response to user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process;</p> <p>creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the block diagram comprises a plurality of interconnected nodes which</p>	<p>20. A method for specifying a machine vision process, the method comprising:</p> <p>creating a process specification in response to user input, wherein the process specification comprises a plurality of steps specifying a first portion of the machine vision process;</p> <p>creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the machine vision process;</p>

<p>visually indicate operation of the second portion of the process;</p> <p>wherein the process specification and the block diagram collectively specify the computer-implemented process.</p>	<p>wherein the process specification and the block diagram collectively specify the machine vision process.</p>
<p>27. A memory medium for specifying a computer-implemented process, the memory medium comprising program instructions executable to:</p> <p>display a graphical user interface comprising a plurality of possible steps that are useable in specifying at least a portion of a process;</p> <p>receive user input selecting a plurality of steps specifying a first portion of the process;</p> <p>create a process specification in response to</p>	<p>21. A memory medium for specifying a machine vision process, the memory medium comprising program instructions executable to:</p> <p>display an image on a display; display a graphical user interface on the display, wherein the graphical user interface comprises a plurality of possible image processing steps;</p> <p>receive user input selecting a plurality of image processing steps to be applied to the image;</p> <p>create a process specification in response to</p>

<p>the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process;</p> <p>create a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process.</p>	<p>the user input, wherein the process specification comprises the plurality of image processing steps, wherein the process specification specifies a first portion of the machine vision process;</p> <p>create a block diagram in response to user input, wherein the block diagram specifies a second portion of the machine vision process; wherein the process specification and the block diagram collectively specify the machine vision process.</p>
<p>35. A system for specifying a computer-implemented process, the system comprising:</p> <p>a processor; a memory storing program instructions;</p>	<p>28. A system for specifying a machine vision process, the system comprising:</p> <p>a processor; a memory storing program instructions; wherein the processor is operable to execute the program</p>

<p>wherein the processor is operable to execute the program instructions to:</p> <p>display a graphical user interface comprising a plurality of possible steps that are useable in specifying at least a portion of a process; receive user input selecting a plurality of steps specifying a first portion of the process;</p> <p>create a process specification in response to the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process;</p> <p>create a block diagram in response to user input, wherein the block diagram specifies a second portion of the process;</p>	<p>instructions to:</p> <p>display an image on a display;</p> <p>display a graphical user interface on the display, wherein the graphical user interface comprises a plurality of possible image processing steps;</p> <p>receive user input selecting a plurality of image processing steps to be applied to the image;</p> <p>create a process specification in response to the user input, wherein the process specification comprises the plurality of image processing steps, wherein the process specification specifies a first portion of the machine vision process;</p> <p>create a block diagram in response to user input, wherein the block diagram specifies a second portion of the machine vision</p>
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wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process.	process; wherein the process specification and the block diagram collectively specify the machine vision process.
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The limitations recited in claims 1, 19 and 20 are obvious variations of limitation in '559 Claims 1, 3 and 8.

The limitations recited in claims 21 is obvious variations of limitation in '559 Claim 16.

The limitations recited in claim 25 is obvious variations of limitation in '559 Claim 20.

The limitations recited in claim 27 is obvious variations of limitation in '559 Claim 21.

The limitations recited in claim 35 is obvious variations of limitation in '559 Claim 28.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-13, 15-16, 18--24 and 26-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyer US Patent No. 5,940,296.

As Per Claim 1, Meyer teaches that a method and system are provided for interactively developing a graphical, control-flow structure and associated application software for use in a machine vision system (E.g. see Fig. 2 and associated text) using a computer system without the need for a user to write any code. (E.g. see Abstract and associated text). In that Meyer discloses the method that covering the steps of:

“displaying a graphical user interface (E.g. see Col. 8:51) comprising a plurality of possible steps that are useable in specifying at least a portion of a process” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

“receiving user input selecting a plurality of steps specifying a first portion of the process” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text. Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafcet and Acitvex (E.g. see Col. 2:58 to 5:17));

“creating a process specification in response to the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process,” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

“creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process;

wherein the process specification and the block diagram collectively specify the computer-implemented process” (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafset and Acitvex (E.g. see Col. 2:58 to Col. 5:17).

Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of storing three sets of custom control programs, wherein the **first** set represents components of a user interface, the **second** set represents the machine vision algorithms for the machine vision system, and the **third** set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to the desired component of the user interface with desired hardware operating parameters. Then, said first set of custom control program is linked to the second set of custom control program to form the application software.

Thus, the toolbox is the GUI that allows the user to create process specification (**first** portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the **second** portion. The two portions in combination makeup the machine vision process. In the

first phase of the system, the user teaches the system to perform particular application (e.g. part identification, measurement, etc.).

Then in the second phase, applications are executed automatically (E.g. see Col. 11:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 11:50 to Col. 13 and Fig. 8).

As Per claim 2, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein the block diagram graphically specifies a procedure that uses values determined by the first portion of the process to produce one or more results.” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text).

As Per claim 3, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein the block diagram graphically specifies a decision operation based on execution results determined by steps in the process specification.” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text).

As Per claim 4, the rejection of claim 1 is incorporated and further Meyer teaches:

“including one or more steps in the process specification operable to perform a plurality of operations based on a result computed by the block diagram.” (Again, see noted above of Claim 1).

As Per claim 5, the rejection of claim 1 is incorporated and further Meyer teaches:

“including a step in the process specification that references the block diagram.” (E.g. see Fig. 8 and associated text and noted in Claim 1).

As Per claim 6, the rejection of claim 1 is incorporated and further Meyer teaches:

“executing the process, wherein said executing comprises executing the process specification and executing the block diagram.” (Again, see noted above of Claim 5).

As per Claims 7-12, the rejection of claim 1 are incorporated and are rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claim 13, the rejection of claim 12 is incorporated and further Meyer teaches:

“wherein the object is an image.” (E.g. see Col. 1:39).

As per Claim 15, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein the process specification is stored as a computer program.” (E.g. see Col. 11:17-18).

As per Claim 16, the rejection of claim 1 is incorporated and is rejected under the same reason set forth in connection of the rejection of claim 11.

As per Claim 18, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein process is executable to inspect a device;” (E.g. see Col. 2:13-18);

“wherein the block diagram is executable to determine an inspection classification for the device, depending on execution results of the process specification.” (E.g. see Col. 1:43-53).

As per Claim 19, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein the process is a machine vision process executable to visually inspect a device;” (E.g. see Abstract and Fig. 2 and associated text);

“wherein the block diagram is executable to determine an inspection classification for the device, depending on execution results of the process specification.” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text).

As per Claim 20, the rejection of claim 1 is incorporated and further Meyer teaches:

“wherein the process is executable to perform one ... of the following types of applications: a machine vision application;” (E.g. see Abstract and associated text).

As per Claim 21, Meyer teaches:

“displaying a graphical user interface (GUI) (E.g. see Col. 8:51), wherein the GUI includes operations that are selectable to be included in a process specification,” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

“receiving user input to the GUI, wherein the user input selects operations for inclusion in the process specification,” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text. Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Graft and Acitvex (E.g. see Col. 2:58 to 5:17));

“creating a process specification in response to the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process,” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

“creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process” (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Graft and Acitvex (E.g. see Col. 2:58 to Col. 5:17). Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of

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storing three sets of custom control programs, wherein the **first** set represents components of a user interface, the **second** set represents the machine vision algorithms for the machine vision system, and the **third** set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to the desired component of the user interface with desired hardware operating parameters. Then, said first set of custom control program is linked to the second set of custom control program to form the application software.

Thus, the toolbox is the GUI that allows the user to create process specification (**first** portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the **second** portion. The two portions in combination makeup the machine vision process. In the first phase of the system, the user teaches the system to perform padicular application (e.g. part identification, measurement, etc.).

Then in the second phase, applications are executed automatically (E.g. see Col. 11:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 11:50 to Col. 13 and Fig. 8).

As per Claims 22-24, the rejection of claim 21 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 4-6, respectively.

As Per Claim 26, Meyer teaches:

“creating a process specification in response to the user input, wherein the process specification comprises a plurality of steps specifying a first portion of the process;” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text);

“creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the block diagram comprises a plurality of interconnected nodes which visually indicate operation of the second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process” (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Graftet and Acitvex (E.g. see Col. 2:58 to Col. 5:17). Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of storing three sets of custom control programs, wherein the **first** set represents components of a user interface, the **second** set represents the machine vision algorithms for the machine vision system, and the **third** set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to

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the desired component of the user interface with desired hardware operating parameters. Then, said first set of custom control program is linked to the second set of custom control program to form the application software. Thus, the toolbox is the GUI that allows the user to create process specification (**first** portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the **second** portion. The two portions in combination makeup the machine vision process. In the first phase of the system, the user teaches the system to perform padicular application (e.g. part identification, measurement, etc.). Then in the second phase, applications are executed automatically (E.g. see Col. 11:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 11:50 to Col. 13 and Fig. 8).

As Per Claim 27, is the memory medium claim corresponding to the method claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1.

As per Claims 28-34, the rejection of claim 27 are incorporated and are rejected under the same reason set forth in connection of the rejection of claims 4-6, 10, 12-13 and 19 respectively.

As Per Claim 35, is the system medium claim corresponding to the method claim 1 and is rejected under the same reason set forth in connection of the rejection of claim 1. Further Meyer discloses processor (E.g. see ABSTRACT).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable Meyer in view of Favreau et al., US Patent No. 6,531,707 (hereinafter Favreau).

Meyer doesn't explicitly disclose script. However Favreau, in analogous art, teaches script (E.g. see col. 10:10-14, A script can be a software that calls the run routines that executes the desired steps)". Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Favreau into the system of Meyer, so that the process specification comprises a script. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to graphically connect inspection steps to each other.

As per Claim 17, the rejection of claim 1 is incorporated and further the combination of Meyer and Favreau teaches:

“wherein said creating the process specification in response to user input comprises creating a program portion coded in a text-based programming language in response to user input” (See as noted above of Claim 14, a script is a text-based language).

As per Claim 25, Meyer teaches:

“receiving user input indicating operations to be performed on an object,” (E.g. see Col. 5:5-13);

“storing a plurality of steps in response to the user input, wherein each step is operable to perform an operation,” (E.g. see Col. 7:31 to 8:65 and See Fig. 3-6,8 and associated text. Said toolbox allows for a plurality of image processing steps to be selected by the user using said GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafset and Acitvex (E.g. see Col. 2:58 to 5:17)) .

“creating a block diagram in response to user input, wherein the block diagram specifies a second portion of the process; wherein the process specification and the block diagram collectively specify the computer-implemented process” (see below)

Meyer teaches a method and system for developing application software for use in a machine vision system (FIG. 2, No. 20), wherein a graphical user interface (GUI) in the form of a toolbox is used to capture and process images (E.g. see Fig. 3-6, 8 and Col. 7:31 to 8:65). Said toolbox allows for a plurality of image processing steps to be selected by the user using said

GUI. In addition, machine vision applications or programs are easily built interactively using graphical flow control environment such as Grafcet and Acitvex (E.g. see Col. 2:58 to Col. 5:17). Said machine vision applications are built using drag and drop environment or via a menu system (E.g. see Col. 9:34 to Col. 10:50 and Fig. 4-6). Further, the method comprises the step of storing three sets of custom control programs, wherein the **first** set represents components of a user interface, the **second** set represents the machine vision algorithms for the machine vision system, and the **third** set represents hardware operating parameters. Based on the commands received from the user, the first set of custom control program is selected, which corresponds to the desired component of the user interface with desired hardware operating parameters. Then, said first set of custom control program is linked to the second set of custom control program to form the application software. Thus, the toolbox is the GUI that allows the user to create process specification (**first** portion) in response to user input, which comprises a plurality of image processing steps. Interactively building machine vision application specifically is creating block diagram, which specifically is the **second** portion. The two portions in combination make up the machine vision process. In the first phase of the system, the user teaches the system to perform particular application (e.g. part identification, measurement, etc.). Then in the second phase, applications are executed automatically (E.g. see Col. 11:5 to 13:50). Thus, Meyer teaches a machine vision system, wherein the GUI is utilized to obtain and process image data, and said processed data is used to perform the functions of the machine vision system. Said functions comprise parts inspection and feature correlation which requires making decisions or judgments based on the processed data (E.g. calculate a "score" that show a level of similarity between the device and the image) (E.g. see Col. 11:50 to Col. 13 and Fig. 8).

Meyer doesn't explicitly disclose script. However Favreau, in analogous art, teaches script (E.g. see col. 10:10-14, A script can be a software that calls the run routines that executes the desired steps)". Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Favreau into the system of Meyer, so that the process specification comprises a script. The modification would have been obvious because one of ordinary skill in the art would have been motivated to allow the user to graphically connect inspection steps to each other.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang J Tang whose telephone number is (571) 272-3705. The examiner can normally be reached on 8:30AM - 7:00PM (Monday – Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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